DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023825 Address: 333 Burma Road **Date Inspected:** 20-Apr-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes An Qing Xiang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** Components

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector, Anand Upadhye was present during the times noted above for observations relative to the work being performed.

WELDING

This QA Inspector observed the following work in progress:

BAY 14

This QA Inspector observed ZPMC qualified welding personnel identified as 045270 perform welding by Submerged Arc Welding (SAW), on Deck panel DP3171 to Deck panel DP3172 weld of OBG Segment 14W. Weld joint is identified as SEG3020-005. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-223(2)1T-ESAB-1. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 037748 perform welding by Shielded Metal Arc Welding (SMAW), on Edge plate to Deck plate weld between panel point PP125 and panel point PP127, of OBG Segment 14W. Weld joint is identified as SEG3020AG-002. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 045175 perform repair welding by Flux Cored Arc Welding (FCAW), on Traveler Rail TR3021. Weld joint is identified as TR3021-TR1-001-001,

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010. ZPMC Quality Control (QC) Inspector identified as Sun Tian Liang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-345-FCAW-3G (3F)-ESAB-Repair and Welding repair report B-WR20756. This QA Inspector noted welding variables were 240~250 amperes and 25.4 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066695 perform repair welding by Flux Cored Arc Welding (FCAW), on Traveler Rail TR3027. Weld joint is identified as TR3027-TR1-001-011. ZPMC Quality Control (QC) Inspector identified as Sun Tian Liang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-345-FCAW-3G (3F)-ESAB-Repair-1 and Welding repair report B-WR20755. This QA Inspector noted welding variables were 245~265 amperes and 25.1 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067275 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 125, of OBG Segment 14W. Weld joint is identified as SEG3020W-003. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 245~260 amperes and 24.8 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 045280 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 125, of OBG Segment 14W. Weld joint is identified as SEG3020V-041. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 240~260 amperes and 25.2 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066421 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 128.3, of OBG Segment 14W. Weld joint is identified as SEG3020D-039. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 235~250 amperes and 25.4 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066881 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel I-Stiffener plate weld at panel point 128.3, of OBG Segment 14W. Weld joint is identified as DP3172-001-389. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 230~245 amperes and 25.5 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067949 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Floor beam weld at panel point 128.3, of OBG Segment 14W. Weld joint is identified as SEG3020E-001. ZPMC Quality Control (QC) Inspector identified as An

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Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2232-ESAB. This QA Inspector noted welding variables were 275~290 amperes and 24.5 volts, which appears to be in compliance with the approved WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, phone: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Upadhye, Anand	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer